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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,727	04/23/2001	Alando M. Ballantyne	014208.1360	4537

35005 7590 07/14/2005

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EXAMINER

ZHEN, WEI Y

ART UNIT PAPER NUMBER

2191

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,727

Applicant(s)

BALLANTYNE ET AL.

Examiner

Wei Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-12, 23 and 25 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/22/2005
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

RD

1. This office action is in response to the amendment filed on 4/22/2005.
2. Claims 1-23, 25 are pending.
3. Claims 7-12, 23, 25 are allowed.
4. Claim 24 is canceled.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stefaniak, US Patent No. 6,550,054, in view of van Elkeren et al., US Patent No. 6,618,852 (hereinafter van Elkeren). (see the previous office action for rejections to these claims).

6. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lection et al., US Patent No. 6,418,446 (hereinafter Lection) in view of Stefaniak further in view of van Elkeren et al., US Patent No. 6,618,852 (hereinafter van Elkeren).

As Per Claim 13, Lection disclosed: A system for outputting data from a Document Object Model as Extensible Markup Language, the system comprising: - a computer system having an application that outputs data, each data instance corresponding to a write operation of the application', (see col 3, Lines 48-52). Lection didn't explicitly disclose using a writer engine. However, Stefaniak taught a engine operable to write the data output by the application in plural

active contexts; wherein the application calls the writer engine when the application outputs data, the writer engine operable to build model instance for output of the data in accordance with the Extensible Markup Language schema. (see Column 5, Lines 43-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate XMVUML DTD generator, as suggested by Stefaniak into the system of Lektion, to produce XMI/UML DTD streams. The modification would have been obvious because one of ordinary skill in the art would have been motivated to provide a simple means to generate XML codes.

Neither Lektion nor Stefaniak disclose DOM. However, van Elkeren et al disclose DOM (Column 12, Lines 5-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use DOM, as suggested by van Elkeren. The modification would have been obvious because one of ordinary skill in the art would have been motivated to provide a simple means of reading and writing data to and from an XML tree structure.

As per claim 14, see the previous office action for rejections to this claim.

7. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lektion in view of Stefaniak and van Elkeren et al., US Patent No. 6,618,852, further in view of Shanmugasundaram et al. "Relational Databases for Querying XML Documents: Limitations and Opportunities". Proceedings of the 25th VLDB Conference, Edinburgh, Scotland, 1999 (hereinafter Shanmugasundaram).

See the previous office action for rejections to these claims.

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8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lection in view of Stefaniak and van Elkeren et al., US Patent No. 6,618,852, further in view of Shanmugasundaram, and Vermeire et al., US Patent No. 6,209,124 (hereinafter Vermeire).

See the previous office action for rejections to this claim.

Response to Arguments

9. Applicant's arguments filed 4/22/2005 have been fully considered but they are not persuasive.

In the remark, applicant has argued:

1) Stefaniak merely discloses generating models of legacy applications - the system disclosed in Stefaniak does not modify legacy computer applications, let alone automatically modifying one or more applications of the legacy computer system that output data" such that the one or more modified applications operable to output data written using a Document Object Model from the legacy computer system in Extensible Markup Language as recited in Claim 1; how could transforming a terminal based screen application into an application specification be equated with automatically modifying the one or more applications of the legacy computer system that output data based on the mapping of the model of the legacy computer system to the Extensible Markup Language schema" when the document type definitions of the modeling language-based representation of the application specification in Stefaniak do not even exist until the transformation into the application specification.

Examiner's response:

1) Stefaniak clearly disclose based at least on the mapping of the model of the legacy computer system to the Extensible Markup Language schema, automatically modifying one or more applications of the legacy computer system that output data (see Column 5, Lines 39-44, "...end-to-end process flow from a legacy program to an XML/UML...", when a legacy program is transformed to an XML, the legacy program must be converted/modified, and the elements in the legacy program must be mapped to the Extensible Markup Language schema for the conversion).

Applicant's argument:

2) Van Eikeren, however, fails to disclose, teach, or suggest automatically modifying (based at least on the mapping of the model of the legacy computer system to the Extensible Markup Language schema) the one or more applications of the legacy computer system that output data, the one or more modified applications operable to output data written using a Document Object Model from the legacy computer system in Extensible Markup Language as recited in Claim 1.

Examiner's response:

2) Stefaniak discloses automatically modifying (based at least on the mapping of the model of the legacy computer system to the Extensible Markup Language schema) the one or more applications of the legacy computer system that output data, the one or more modified applications operable to output data from the legacy computer system in Extensible Markup Language as recited in Claim 1 except Document Object Model. Van Eikeren is only cited to show Document Object Model. One cannot show nonobviousness by attacking references

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individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's argument:

3) the Examiner's attempt to modify Stefaniak appears to constitute the type of impermissible hindsight reconstruction of Applicants' claims, using Applicants' claims as a blueprint.

Examiner's response:

3) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant's argument:

4) Stefaniak fails to disclose, teach, or suggest modifying an application of the legacy computer system to output data having a schema element of a target Extensible Markup Language schema, the output data corresponding to a write operation of the application as recited in Claim 20.

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Examiner's response:

- 4) Stefaniak clearly disclose this limitation at Fig.6, col. 2 lines 33-36, col. 6 lines 56-67.

Applicant's argument:

- 5) The Examiner acknowledges that Stefaniak fails to disclose using a Document Object Model. van Eikeren does not teaches populating a Document Object Model with the output data to output an Extensible Markup Language instance.

Examiner's response:

- 5) Stafaniak discloses everything except DOM. Van Eikeren is only cited to discloses a Document Object Model. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's argument:

- 6) Lektion fails to disclose, teach, or suggest a computer system having an application that outputs data, each data output instance corresponding to a write operation of the application as recited in Claim 13. Stefaniak fails to even mention the Document Object Model.

Examiner's response:

- 6) Applicant's arguments have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of van Elkeren et al., US Patent No. 6,618,852.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wei Zhen whose telephone number is 571-272-3708. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wei Zhen
Primary Examiner
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